

REMARKS

Applicants acknowledge receipt of an Office Action dated February 23, 2004. In this response, Applicants have amended the specification. In addition, Applicants have amended claims 11, 14 and 17. With respect to the amendments to claims 11 and 17, the PTO has already considered mechanical thinning/weakening of the header. Claim 14 has simply been redrafted in independent form by incorporating the language of claim 11 from which it previously depended. Thus, Applicants believe that these amendments do not raise new issues. Following entry of these amendments, claims 11-17 are pending in the application.

Reconsideration of the present application is respectfully requested in view of the foregoing amendments and the remarks which follow.

Objections to the Specification

On page 2 of the Office Action, the PTO has objected the specification for containing references to claims by claim number. In this response, Applicants have amended the specification to delete references to claims and, as necessary, substitute the language of the referenced claims as originally filed. Accordingly, Applicants request reconsideration and withdrawal of the objection to the specification.

Claim Objections

On page 3 of the Office Action, the PTO has objected to claim 16 as allegedly being of improper form for failing to further limit the subject matter of a previous claim. In this response, Applicants have redrafted claim 14 in independent form and have replaced the reference to claim 11 with the language of claim 11. Applicants note that this does not introduce any new issues for consideration inasmuch as the PTO has already considered claim as a claim which depended from claim 11. Applicants note that claim 14 is a method claim and that claim 16 depends from claim 14. Accordingly, Applicants submit that the method step of claim 16 is proper and respectfully request reconsideration and withdrawal of the objections to claim 16.

Rejections Under 35 U.S.C. § 112

On page 2 of the Office Action, the PTO has rejected claims 11-17 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In this response, Applicants have amended claims 11 and 17 to replace the phrase “mechanical thinning” with the phrase “mechanical weakening” for consistency with the translation of the German phrase “*mechanische Schwächung*” used throughout the English translation of Applicants’ priority document. The phrase, “*mechanische Schwächung*,” refers to a process of mechanically weakening a product. This mechanical weakening results in a product having a smaller thickness in the region of the mechanical weakening.

Reconsideration and withdrawal of the outstanding rejection under §112, 1st paragraph, is respectfully requested.

Rejections Under 35 U.S.C. § 103

On page 3 of the Office Action, the PTO has rejected claims 11-17 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 3,416,600 to Fink (hereafter “Fink”). Applicants respectfully traverse this rejection for the reasons set forth below.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA 1974). See MPEP §2143.03. Here, while Fink, at page 2, lines 53-55, states that “[t]he headers 12 and 13 herein comprise relatively small diameter circularly tubular headers,” Fink fails to teach or properly suggest a header for a heat transfer apparatus wherein a “ratio (D/D₁) of the tube outside diameter (D) outside of the slot areas to the tube transverse dimension (D₁) is between 1.02 and 1.5 in the slot areas” as recited in independent claims 11 and 14. The ratio of D/D₁ reflects the fact that the tube has, in the region of the slot, a noncircular shape due to the process of making the slot.

With respect to this deficiency in Fink, the PTO has neglected its obligation to bear the burden of coming forth with evidence that is sufficient to support a *prima facie* case of obviousness. For example, on page 4 of the Office Action, the PTO conclusorily stated that “[t]he specific ratio (D/D₁) is considered to be an obvious choice” without pointing to any prior art teachings, while reversing the burden of proof by placing the burden on Applicants. This is clearly improper. Absent a *prima facie* case of obviousness made out by the PTO, a

claimed invention is presumptively non-obvious, and the Applicants have no burden to “prove” non-obviousness in such an instance.

Further, the mechanical weakening recited in claims 11, 14 and 17 describes not only a process but also the properties of the product. Specifically, as a result of the mechanical weakening, the tube has a smaller thickness in the region of the tube slots. Applicants submit that Fink fails to teach or fairly suggest this feature of the presently claimed invention.

Finally, Fink also fails to teach or properly suggest that the ratio $D/2s$ is less than 5 as recited in claims 11 and 14. Fink’s drawings are schematically drawn, and one skilled in the art would not expect that the size of a tube in such drawings is realistic and would not rely on Fink’s drawings in the manner suggested by the PTO. As a result, Applicants submit that one skilled in the art would not be able to obtain the claimed ratio $D/2s$ from Fink.

If an independent claim is nonobvious under §103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03. Thus, Applicants submit that claims 12-13, and 15-17, which ultimately depend from either independent claim 11 or 14, are also non-obvious.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of this rejection under §103.

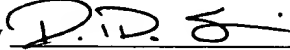
CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 5/24/04

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